

Superfund Records Center
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D-583-7-5-11
Revision 1

**WELLS G & H SITE
REMEDIAL INVESTIGATION REPORT
PART I
WOBURN, MASSACHUSETTS**

TDD NO. F1-8607-07
NUS JOB NO. MA11RF
EPA SITE NO. MAD980732168
CONTRACT NO. 68-01-6699


VOLUME II: PLATES


**FOR THE
REGION I
US EPA
WASTE MANAGEMENT DIVISION**

OCTOBER 17, 1986

**NUS CORPORATION
SUPERFUND DIVISION**


SUBMITTED BY


**JOANNE O'NEILL MORIN
PROJECT MANAGER
CHEMIST**


**ALAN K. ANGERS
ASSISTANT PROJECT MANAGER
GEOLOGIST**

APPROVED BY


**RICHARD G. DINITTO
FIT I MANAGER**


**THOMAS PLANT
QUALITY ASSURANCE**



NOTES:

1. BASE MAP FROM TOPOGRAPHIC MAPS FOR THE PLANNING BOARD, CITY OF WOBURN, MASSACHUSETTS GRID NOS. 12, 13, 16, 17 BY LOCKWOOD, KESSLER & BARTLETT, INC. 1968. PHOTOGRAPH BY THE U.S. GEOLOGICAL SURVEY SEPTEMBER, 1985 BASED UPON EPA/EPIC AERIAL PHOTOGRAPH UPDATE APRIL, 1985.
2. THE FOLLOWING DESIGNATIONS APPLY TO THE INSTALLATION OF WELLS:
 - S1-22 EPA MONITORING WELLS INSTALLED BY ECOLOGY & ENVIRONMENT INC., 1981
 - S23-62 PREVIOUSLY EXISTING WELLS
 - S63-86 EPA MONITORING WELLS INSTALLED BY NUS CORPORATION, DECEMBER, 1984-MARCH, 1985
 - S87-97 EPA MONITORING WELLS INSTALLED BY THE U.S. ARMY CORPS OF ENGINEERS, SEPTEMBER, 1985 - NOVEMBER, 1985
 - B BW1 THROUGH BW7 MONITORING WELLS INSTALLED BY WOODWARD CLYDE CONSULTANTS, SEPTEMBER, 1983 - JULY, 1984, BW8 - BW14 INSTALLED BY WESTON GEOPHYSICAL CORP. AUGUST 1985 - NOVEMBER 1985
 - G W. R. GRACE/CRYOVAC DIVISION MONITORING WELLS INSTALLED BY GEOENVIRONMENTAL CONSULTANTS, JUNE, 1983 - JANUARY, 1986
 - IUS INTERSTATE UNIFORM MONITORING WELLS INSTALLED BY ENVIRONMENTAL RESEARCH AND TECHNOLOGY NOVEMBER, 1983 - MARCH, 1984

LEGEND:

- MONITORING WELL SCREENED IN OVERBURDEN
- MONITORING WELL SCREENED IN BEDROCK
- INDUSTRIAL WATER WELL SCREENED IN OVERBURDEN
- WATER WELL FINISHED IN BEDROCK
- ABANDONED WATER WELL SCREENED IN OVERBURDEN
- MONITORING WELL SCREENED IN BEDROCK AND OVERBURDEN

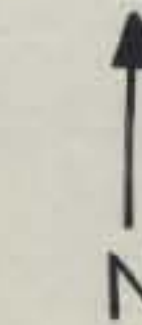
DATE	NO.	REVISION

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PROJECT MANAGER J. MORIN
CLIENT APPROVAL



WELL LOCATIONS WELLS G & H WOBURN, MA		CONTRACT 68-01-6699
CLIENT ENVIRONMENTAL PROTECTION AGENCY	DATE OCTOBER, 1986	SHEET OF
SCALE AS NOTED		REV
DRAWING NO. PLATE 1		



NOTES:

1. BASE MAP FROM TOPOGRAPHIC MAPS FOR THE PLANNING BOARD, CITY OF WOBURN, MASSACHUSETTS GRID NOS. 12, 13, 16, 17 BY LOCKWOOD, KESSLER & BARTLETT, INC. 1966. PHOTOGRAPH BY THE U.S. GEOLOGICAL SURVEY SEPTEMBER, 1985 BASED UPON EPA/EPIC AERIAL PHOTOGRAPH UPDATE APRIL, 1985.
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 - S63-86 EPA MONITORING WELLS INSTALLED BY NUS CORPORATION, DECEMBER, 1984 - MARCH, 1985
 - TW TEST WELLS INSTALLED DURING WATER WELL EXPLORATION BY THE CITY OF WOBURN.
 - B BEATRICE FOODS MONITORING WELLS INSTALLED BY WOODWARD CLYDE CONSULTANTS, SEPTEMBER, 1983 - JULY, 1984
 - G W. R. GRACE/CRYOVAC DIVISION MONITORING WELLS INSTALLED BY GEOENVIRONMENTAL CONSULTANTS, JUNE, 1983 - JANUARY, 1986

LEGEND:

- MONITORING WELL SCREENED IN OVERBURDEN
- MONITORING WELL SCREENED IN BEDROCK
- ⊙ INDUSTRIAL WATER WELL SCREENED IN OVERBURDEN
- ⊙ WATER WELL FINISHED IN BEDROCK
- ⊙ ABANDONED WATER WELL SCREENED IN OVERBURDEN
- ⊙ MONITORING WELL SCREENED IN BEDROCK AND OVERBURDEN
- ▲ SURFACE WATER SAMPLE LOCATION

NOTES:
 1. THIS DRAWING IS BASED ON THE MASSACHUSETTS
 2. STATE DEPARTMENT OF ENVIRONMENTAL AFFAIRS
 3. AERIAL PHOTOGRAPH OF 1985
 4. THESE MONITORING WELLS WERE INSTALLED BY
 5. NUS CORPORATION
 6. THESE MONITORING WELLS WERE INSTALLED BY
 7. NUS CORPORATION
 8. THESE MONITORING WELLS WERE INSTALLED BY
 9. NUS CORPORATION

DATE	NO.	REVISION	BY

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PROJECT MANAGER	J. MORIN
DIVISION MANAGER	
CLIENT APPROVAL	



SAMPLING LOCATIONS WELLS G & H WOBURN, MA			
CLIENT	ENVIRONMENTAL PROTECTION AGENCY	CONTRACT	68-01-6699
SCALE	AS NOTED	DATE	OCTOBER, 1986
DRAWING NO.	PLATE 2	SHEET	OF




NOTES:

1. BASE MAP FROM TOPOGRAPHIC MAPS FOR THE PLANNING BOARD, CITY OF WOBURN, MASSACHUSETTS GRID NOS. 12, 13, 16, 17 BY LOCKWOOD, KESSLER & BARTLETT, INC., 1986. PHOTOREVISED BY THE U.S. GEOLOGICAL SURVEY SEPTEMBER, 1985 BASED UPON EPA/EPIC AERIAL PHOTOGRAPH UPDATE APRIL, 1985.
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 - G W. R. GRACE/CRYOVAC DIVISION MONITORING WELLS INSTALLED BY GEOENVIRONMENTAL CONSULTANTS, JUNE, 1983 - JANUARY, 1986
 - IUS INTERSTATE UNIFORM MONITORING WELLS INSTALLED BY ENVIRONMENTAL RESEARCH AND TECHNOLOGY, NOVEMBER, 1983 - MARCH, 1984
3. ALL ELEVATIONS RELATIVE TO MEAN SEA LEVEL.

LEGEND:

- MONITORING WELL SCREENED IN OVERBURDEN
- ⊙ MONITORING WELL SCREENED IN BEDROCK & OVERBURDEN
- ⊗ ABANDONED WATER WELL SCREENED IN OVERBURDEN

 NUS CORPORATION A Halliburton Company		WATER ELEVATION MAP (SHALLOW & MEDIUM WELLS) WELLS G & H WOBURN, MA	
CLIENT: ENVIRONMENTAL PROTECTION AGENCY		CONTRACT: 68-01-6699	
SCALE: AS NOTED		DATE: OCTOBER, 1986	
DRAWING NO. PLATE 4		SHEET 4 OF 4	

DATE: NO.	REVISION	BY:	THIS DRAWING, INCLUDING THE INFORMATION IT CONTAINS, IS THE PROPERTY OF N. U. S. CORP. IT IS SUBMITTED IN CONNECTION WITH THE TRANSACTION TO WHICH IT PERTAINS AND MUST NOT BE USED IN ANY MANNER DETRIMENTAL TO THE INTERESTS OF N. U. S. CORP. THE DRAWING IS NOT TO BE COPIED AND MUST BE RETURNED UPON REQUEST.	PROJECT MANAGER: J. MORIN	DIVISION MANAGER:	CLIENT APPROVAL:
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 - S87-97 EPA MONITORING WELLS INSTALLED BY THE U.S. ARMY CORPS OF ENGINEERS, SEPTEMBER, 1985 - NOVEMBER, 1985
 - B BW1 THROUGH BW7 MONITORING WELLS INSTALLED BY WOODWARD CLYDE CONSULTANTS, SEPTEMBER, 1983 - JULY, 1984, BW8 - BW14 INSTALLED BY WESTON GEOPHYSICAL CORP. AUGUST - NOVEMBER, 1985
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 - IUS INTERSTATE UNIFORM MONITORING WELLS INSTALLED BY ENVIRONMENTAL RESEARCH AND TECHNOLOGY, NOVEMBER, 1983 - MARCH, 1984

LEGEND:

- 1000 + PPB
- 501 - 1000 PPB
- 101 - 500 PPB
- 11 - 100 PPB
- 0 - 10 PPB
- NOT DETECTED
- DATA COLLECTED BY PARTIES OTHER THAN NUS/FIT
- 3973 - CONCENTRATIONS GREATER THAN 1000PPB ARE INDICATED WITH NUMERICAL VALUES
- TOP SYMBOL INDICATES ACTUAL WELL LOCATION

OVERBURN
BEDROCK
OVERBURN + BEDROCK



NOTES:

1. BASE MAP FROM TOPOGRAPHIC MAPS FOR THE PLANNING BOARD, CITY OF WOBURN, MASSACHUSETTS GRID NOS. 12, 13, 16, 17 BY LOCKWOOD, KESSLER & BARTLETT, INC. 1966. PHOTO REVISOR BY THE U.S. GEOLOGICAL SURVEY SEPTEMBER, 1985 BASED UPON EPA/EPIC AERIAL PHOTOGRAPH UPDATE APRIL, 1985.

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S23-62 PREVIOUSLY EXISTING WELLS

S63-86 EPA MONITORING WELLS INSTALLED BY NUS CORPORATION, DECEMBER, 1984-MARCH, 1985

S87-97 EPA MONITORING WELLS INSTALLED BY THE U.S. ARMY CORPS OF ENGINEERS, SEPTEMBER, 1985 - NOVEMBER, 1985

B BW1 THROUGH BW7 MONITORING WELLS INSTALLED BY WOODWARD CLYDE CONSULTANTS, SEPTEMBER, 1983 - JULY, 1984, BW8 - BW14 INSTALLED BY WESTON GEOPHYSICAL CORP. AUGUST - NOVEMBER, 1985

G W. R. GRACE/CRYOVAC DIVISION MONITORING WELLS INSTALLED BY GEOENVIRONMENTAL CONSULTANTS, JUNE, 1983 - JANUARY, 1986

IUS INTERSTATE UNIFORM MONITORING WELLS INSTALLED BY ENVIRONMENTAL RESEARCH AND TECHNOLOGY, NOVEMBER, 1983 - MARCH, 1984

LEGEND:

- 1000+ PPB
● 501 - 1000 PPB
● 101 - 500 PPB
● 11 - 100 PPB
○ 0 - 10 PPB
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- 3973 - CONCENTRATIONS GREATER THAN 1000 PPB ARE INDICATED WITH NUMERICAL VALUES
- TOP SYMBOL INDICATES ACTUAL WELL LOCATION

OVERBURDEN
BEDROCK
OVERBURDEN - BEDROCK

NOTES:
1. THIS DRAWING IS BASED ON THE INFORMATION CONTAINED IN THE RECORDS OF THE PROJECT.
2. THE DATA WERE OBTAINED FROM THE FOLLOWING SOURCES:
a. MONITORING DATA FROM THE MONITORING WELLS
b. MONITORING DATA FROM THE MONITORING WELLS
c. MONITORING DATA FROM THE MONITORING WELLS
d. MONITORING DATA FROM THE MONITORING WELLS
e. MONITORING DATA FROM THE MONITORING WELLS

DATE	NO.	REVISION	BY

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PROJECT MANAGER J. MORIN
DIVISION MANAGER
CLIENT APPROVAL

NUS CORPORATION
A Halliburton Company

DISTRIBUTION OF THE MEAN CONCENTRATIONS OF TRANS-1,2-DICHLOROETHENE WELLS G & H WOBURN, MA
CLIENT ENVIRONMENTAL PROTECTION AGENCY
CONTRACT 68-01-6699

SCALE AS NOTED DATE OCTOBER, 1986 SHEET OF
DRAWING NO. PLATE 7



NOTES:

1. BASE MAP FROM TOPOGRAPHIC MAPS FOR THE PLANNING BOARD, CITY OF WOBURN, MASSACHUSETTS GRID NOS. 12, 13, 16, 17 BY LOCKWOOD, KESSLER & BARTLETT, INC., 1968. PHOTO REVISOR BY THE U.S. GEOLOGICAL SURVEY SEPTEMBER, 1985 BASED UPON EPA/EPIC AERIAL PHOTOGRAPH UPDATE APRIL, 1985.

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S23-62 PREVIOUSLY EXISTING WELLS

S63-86 EPA MONITORING WELLS INSTALLED BY NUS CORPORATION, DECEMBER, 1984-MARCH, 1985

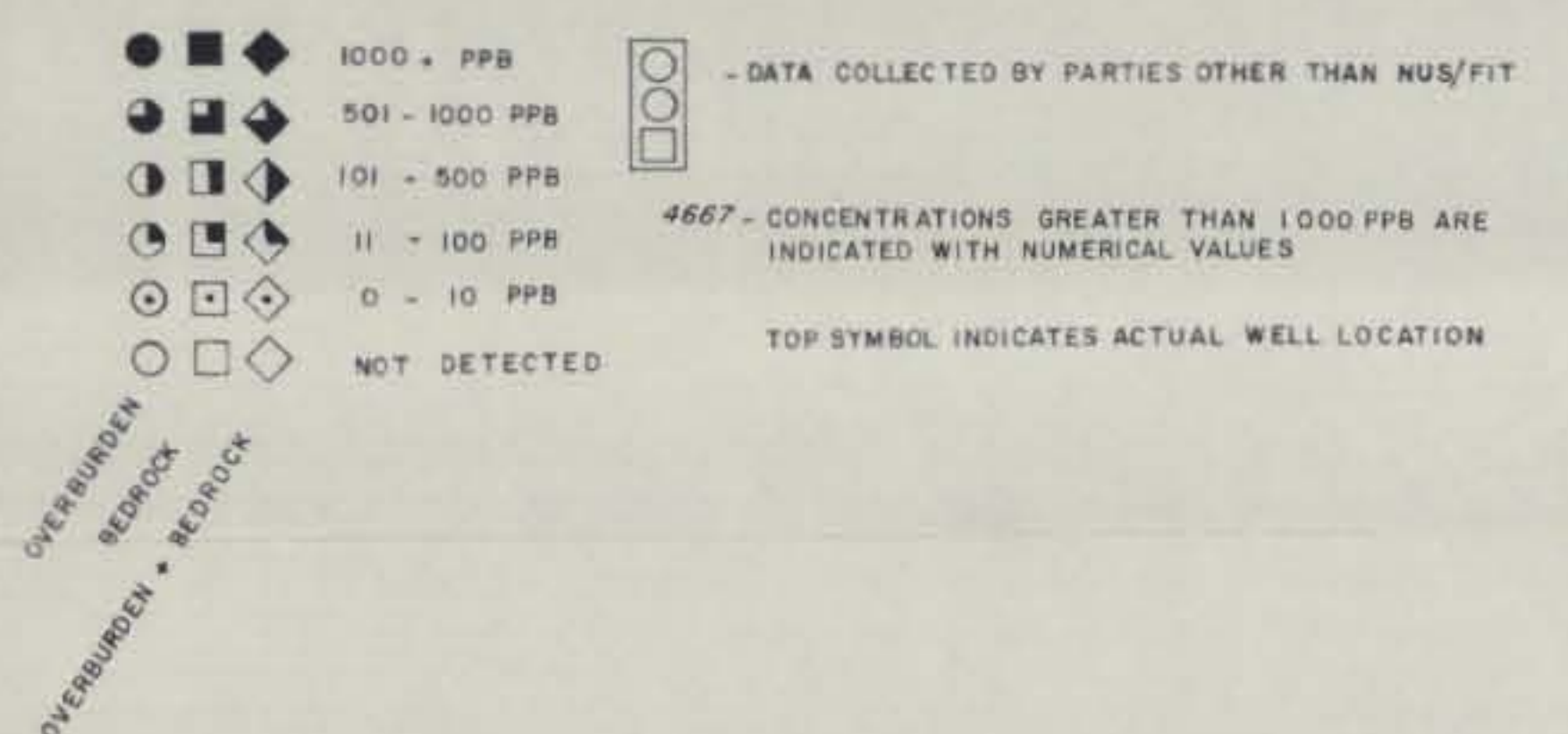
S87-97 EPA MONITORING WELLS INSTALLED BY THE U.S. ARMY CORPS OF ENGINEERS, SEPTEMBER, 1965 - NOVEMBER, 1985

B BW1 THROUGH BW7 MONITORING WELLS INSTALLED BY WOODWARD CLYDE CONSULTANTS, SEPTEMBER, 1983 - JULY, 1984, BW8 - BW14 INSTALLED BY WESTON GEOPHYSICAL CORP. AUGUST - NOVEMBER, 1985

G W. R. GRACE/CRYOVAC DIVISION MONITORING WELLS INSTALLED BY GEOENVIRONMENTAL CONSULTANTS, JUNE, 1983 - JANUARY, 1986

IUS INTERSTATE UNIFORM MONITORING WELLS INSTALLED BY ENVIRONMENTAL RESEARCH AND TECHNOLOGY, NOVEMBER, 1983 - MARCH, 1984

LEGEND:



DATE	NO.	REVISION	BY

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PROJECT MANAGER J. MORIN
DIVISION MANAGER
CLIENT APPROVAL



DISTRIBUTION OF THE MEAN CONCENTRATIONS OF 1,1,1-TRICHLOROETHANE WELLS G & H WOBURN, MA

CLIENT ENVIRONMENTAL PROTECTION AGENCY
SCALE AS NOTED
DATE OCTOBER, 1986
DRAWING NO. PLATE 8
SHEET OF
CONTRACT 68-01-6699
REV



1. BASE MAP FROM TOPOGRAPHIC MAPS FOR THE PLANNING BOARD, CITY OF WOBURN, MASSACHUSETTS GRID NOS. 12, 13, 16, 17 BY LOCKWOOD, KESSLER & BARTLETT, INC., 1966. PHOTOREVISED BY THE U.S. GEOLOGICAL SURVEY SEPTEMBER, 1985 BASED UPON EPA/EPIC AERIAL PHOTOGRAPH UPDATE APRIL, 1985.

IUS INTERSTATE UNIFORM MONITORING WELLS INSTALLED BY ENVIRONMENTAL
RESEARCH AND TECHNOLOGY, NOVEMBER, 1983 - MARCH, 1984

OVERBURDEN
BEDROCK
OVERBURDEN • BEDROCK

NOTE

1. THIS BROWN HEAVEN IS BASED ON THE MASSACHUSETTS PLAIN COUNCIL-GATE SYSTEM (MAGNETIC)
2. UNUSUAL, DRYER (BROWN) - SEE LEMPE
3. CONTAIN INTERNAL - 2
4. COMPARISON COMPLETED BY PHOTOGRAPHIC METHOD FROM PHOTOGRAPHY UNIT - APRIL 16, 1968

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NO	PROJECT MANAGER	J. MORIN		
	DIVISION MANAGER			
	CLIENT APPROVAL			

